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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,318	12/19/2000	Yuji Murayama	SON-1976	2545

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EXAMINER

LABAZE, EDWYN

ART UNIT PAPER NUMBER

2876

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/739,318

Applicant(s)

MURAYAMA ET AL. *LN*

Examiner

EDWYN LABAZE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### DETAILED ACTION

1. Receipt is acknowledged of amendments filed on 5/5/2003.
2. Claims 13-37 are presented for examination.

### *Priority*

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 13-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Bashan et al. (U.S. 6,161,762).

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Re claims 13, 18 and 22: Bashan et al. discloses contact/contactless smart card having customizable antenna interface, which includes an IC/ transaction card 10 for receiving data transmitted by a reader/writer (via an antenna 16; col.14, lines 9-67); a clock generation circuit 51 (col.7, lines 55-67), the clock generation circuit using a received signal to generate a clock signal and a sampling signal (col.8, lines 18-67), received data being the information transmitted to the portable electronic apparatus by way of the received signal (col.3, lines 44+), the sampling signal having a plurality of pulses during each cycle of the clock signal (See Figs. # 8 B-D and 9 B-C of Bashan et al.), a plurality of logic levels being generated during each cycle of the clock signal (col.2, lines 58+ and col.20, lines 35+), a logic level/value "0" or "1" of the plurality being the signal level of received signal when sampled by a pulse of the plurality of pulses (col.15, lines 20-67 and col.16, lines 1-37); and a decoder/demodulator 47, the decoder decoding the plurality of logic levels to generate the received data (col.7, lines 35-67 and col.10, lines 31-67), and wherein received data being the information transmitted to the reader/writer by way of received signal (col.6, lines 10+).

Re claims 14, 19, and 23: Bashan et al. teaches an apparatus and method, wherein the phase of the clock signal is compared to the phase of the received signal (due to the variable loading means in series with a load and a capacitor causing a change in impedance allowing amplitude and/or phase modulation (see col.3, lines 50+); and through the comparator 105 (see col.12, lines 60-67 and col.13, lines 1+), the clock signal, when out of phase with the received signal, is brought into phase with the received signal (col.15, lines 10-67 and col.16, lines 1-50).

Re claims 15, 20, and 24: Bashan et al. discloses an apparatus and method, wherein the decoder includes a storage medium/memory/ EEPROM 53 (col.6, lines 5-14), the plurality of

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logic levels being used to address a storage medium location within the storage medium 53 (col.8, lines 26-67), the received data being stored at the storage medium location (col.10, lines 39+).

Re claims 16, 21, and 25: Bashan et al. teaches an apparatus and method, wherein the received signal is wirelessly transmitted (for a contact-less mode operation, through an antenna interface 16 and a remote transceiver) to the portable electronic apparatus (col.3, lines 40+; and col.17, lines 8-30).

Re claim 17: Bashan et al. discloses an apparatus and method, wherein the received signal is a modulated signal (col.3, lines 44+; col.10, lines 31+).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 26-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bashan et al. (U.S. 6,161,762) over Kurihara et al. (U.S. 5,574,754).

Re claims 26, 30, and 34: The teachings of Bashan et al. have discussed above.

Bashan et al. fails to a correlation value detection circuit for comparing the phase of the clock signal and the receive signal and generating a correlation value signal, and a determination circuit using the correlation value signal to generate the received data.

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Kurihare et al. discloses sliding correlator, which includes a correlating unit 27 (col.7, lines 20+), and a determination circuit 42-3 (col.8, lines 44-67).

In view of Kurihara et al.'s teaching, it would be obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate a correlation value detection circuit for calculating the correlation value for the received signal. The correlation value is calculated from the phase of the received signal and the clock signal generated from the clock generation circuit and the detected signal from the sampling signal circuit, over one period /cycle and accumulated in the memory. The outputted correlation value reduces/filters the noise level and thus improves the signal-to-noise ratio (SNR), and the determination circuit determines the level of the correlation value with regard to the threshold level. Moreover, such modification would enhance the teaching of Bashan et al., and therefore an obvious expedient.

Re claims 27, 31, and 35: Bashan et al. discloses an apparatus and method, wherein a value of the comparator 105 establishes the logic level of the received data, being one of a "0" logic level and a "1" logic level (col.16, lines 22+).

Re claims 28, 32 and 36: Bashan et al. teaches an apparatus and method, wherein the first direction is an increasing direction and the direction opposite to the first direction is a decreasing direction (col.12, lines 35+).

Re claims 29, 33 and 37: Bashan et al. discloses an apparatus and method, wherein the correlation value signal (magnitude) is bounded by a maximum amount and a minimum amount, the minimum amount being less than the maximum amount (col.15, lines 1-42 and col.16, lines 1+).

*Response to Arguments*

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Applicant's arguments filed on 5/5/2003 have been fully considered but they are moot in light of new ground(s) of rejection.

*Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kimura (U.S. 5,237,609) discloses portable secure semiconductor memory device.

Gushima et al. (U.S. 5,737,481) teaches information recording method, information recording apparatus, and information recording medium.

Hollenbeck et al. (U.S. 5,930,304) discloses wireless powered communication device with adaptive data detection and method.

Connell et al. (U.S. 5,940,447) teaches wireless powered communication device using power signal sampling and method.

Bashan et al. (U.S. 6,145,043) discloses contact/contactless data transaction card.

Charrat (U.S. 6,587,518) teaches synchronous BPSK decoder.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (703) 305-5437.

The examiner can normally be reached on 7:30 AM - 4:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

el

Edwyn Labaze  
Patent Examiner  
Art Unit 2876  
July 29, 2003



MICHAEL G. LEE  
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